Accounting Changes and Error Corrections

Overview

There are two kinds of accounting changes. Each kind has a very different way of being handled for accounting purposes. Therefore, the first important step is to be able to distinguish between the two so that you don’t account for one in the way in which the other is to be accounted for.

Change in accounting estimates usually occur when new information comes to light. Common forms include a change in method, rate, or one-time amount adjustments for accounting for the allowance for bad debts and a change in method, estimated useful life, or residual value for an asset or assets that are being depreciated, depleted, or amortized. To account for a change in estimate, the current period and future periods are adjusted to conform to the new estimate. Past financial statements are not adjusted and the entire amount of the adjustment is not usually reflected in the current year (at least in the case of depreciation estimate changes).

Changes in accounting principles, on the other hand, occur when a company is changing from one proper way of doing their accounting to another. Examples include changing the method used for accounting for long-term construction contracts and changing the inventory valuation method (LIFO to FIFO, etc.). When a change in principle occurs, prior financial statements are changed to make them look like they would have had the new method been used all along.

Accounting errors can happen to any company. Correcting the errors can be more complicated and time consuming than doing the accounting correctly to begin with. That is because, for most errors, it isn’t as simple as reversing the original entry and creating the new correct entry. If the error happened in a prior accounting period, and an income statement account was involved, then retained earnings will likely need adjustment instead of an expense or revenue account. Also, some entries impact more than just the account receiving the debit or credit. For instance, purchases can go on to affect ending inventory, cost of goods sold, beginning inventory for the next year, and retained earnings. If financial statements for multiple years are being presented, then the prior years’ financial statements will be adjusted for any prior years’ errors.
Learning Objectives

Refer to the Review of Learning Objectives at the end of the chapter. It is crucial that this section of the chapter is second nature to you before you attempt the homework, a quiz, or exam. This important piece of the chapter serves as your CliffsNotes or “cheat sheet” to the basic concepts and principles that must be mastered.

If after reading this section of the chapter you still don’t feel comfortable with all of the Learning Objectives covered, you will need to spend additional time and effort reviewing those concepts that you are struggling with.

The following “Tips, Hints, and Things to Remember” are organized according to the Learning Objectives (LOs) in the chapter and should be gone over after reading each of the LOs in the textbook.

Tips, Hints, and Things to Remember

LO1 – Understand the two different types of accounting changes that have been identified by accounting standard setters.

Why? Think of the two different types of accounting changes as “big” and “little.” The reason why the treatment for each is different is because one is big and the other isn’t as big. The big changes are the changes in principle requiring retroactive restatement. The little changes are mere estimate changes (or changes in depreciation methods) and can be accounted for by making adjustments now and in the future.

LO2 – Recognize the difference between a change in accounting estimate and a change in accounting principle, and know how a change in accounting estimate is reflected in the financial statements.

How? Change in accounting estimates are reflected in the current and future financial statements of a company. But what does that mean and how do you do it?

Let’s say a company purchased a building on a tract of land for $1,000,000, with 90 percent of the purchase price being allocated to the building 5 years ago. The building was to be depreciated over 25 years, on a straight-line basis, with a residual value of $100,000. The company now believes the building will last only 15 more years, with a residual value of $50,000. Depreciation has not been calculated this year. Here is the calculation:
[($1,000,000 \times 0.90) – $100,000]/25 = $32,000 of depreciation per year under the original assumptions.

$4 \times $32,000 = $128,000 of accumulated depreciation on the building, meaning the adjusted basis (book value) is $772,000 ($900,000 – $128,000).

($772,000 – $50,000)/15 = $48,133 of changed depreciation per year for the next 15 years.

One key thing to note is the number of years for which depreciation has already been computed. Since depreciation hasn’t been computed yet this year, only four years have been taken even though the building was purchased 5 years ago. In other words, under the new estimate, the total useful life of the building is 19 years.

Depreciation on this building, therefore, was $32,000 each of its first four years after purchase and will now be $48,133 in each of its last 15 years, assuming a subsequent change in estimate is not made.

LO3 – Prepare the retrospective adjustment of prior periods’ financial statements, and any necessary cumulative adjustment, associated with a change in accounting principle.

Why? A change in accounting principle (except for a change in depreciation method) is accounted for retroactively so that the financial statements are comparable. In order to make them comparable, a company that changes, say, from FIFO to LIFO will restate all prior periods shown as if they had always used LIFO. If all of the periods since inception are not included, then the first period shown will have a different inventory and retained earnings balance.

LO4 – Report pro forma results for prior years following a business combination.

How? Pro forma results are basically a restatement of prior years’ earnings as if the two companies, that are now together, were always together. This, like the accounting rules for a change in most accounting principles, enhances comparability. The process isn’t as simple as adding up all of account balances, however. Sales made between the two companies are eliminated and depreciation is recomputed based on the fair value of the depreciable assets purchased in the combination.
LO5 – Recognize the various types of errors that can occur in the accounting process, understand when errors counterbalance, and be able to correct errors when necessary.

How? Don’t try to memorize the table called “Analysis Sheet to Show Effects of Errors on Financial Statements” from this section of the chapter. You’ll get things confused or flip-flopped in your head come test time. Plus, you’ll soon forget it after this course is over anyway. At the same time, you don’t want to skip it either! Rather, work through each of the nine examples so that you understand what is happening and why. Basically, you need to practice this topic enough so that it makes sense to you and so that if any error is presented to you, you will be able to figure out how it affects the income statements and balance sheets for all of the years presented.

The following sections, featuring various multiple choice questions, matching exercises, and problems, along with solutions and approaches to arriving at the solutions, is intended to develop your problem-solving and critical-thinking abilities. While learning through trial and error can be effective for improving your quiz and exam scores, and it can be a more interesting way to study than merely re-reading a chapter, that is only a secondary objective in presenting this information in this format.

The main goal of the following sections is to get you thinking, “How can I best approach this problem to arrive at the correct solution—even if I don’t know enough at this point to easily arrive at the proper results?” There is not one simple approach that can be applied to all questions to arrive at the right answer. Think of the following approaches as possibilities, as tools that you can place in your problem-solving toolkit—a toolkit that should be consistently added to. Some of the tools have yet to even be created or thought of. Through practice, creative thinking, and an ever-expanding knowledge base, you will be the creator of the additional tools.

Multiple Choice

MC20-1 (LO1) Which of the following concepts or principles relates most directly to reporting accounting changes and errors?

a. conservatism
b. consistency
c. objectivity
d. materiality
MC20-2 (LO2) Which of the following is the proper time period in which to record a change in accounting estimate or a change in accounting principle involving depreciation method change?
   a. current period and future periods  
   b. current period and retroactively  
   c. retroactively  
   d. current period only

MC20-3 (LO2) Intangibles ‘R Us bought a patent for $600,000 on January 1, 2008, at which time the patent had an estimated useful life of 10 years. On February 15, 2011, it was determined that the patent’s useful life would expire at the end of 2011. How much would Intangibles record as amortization expense for this patent for the year ending December 31, 2011?
   a. $140,000  
   b. $120,000  
   c. $105,000  
   d. $60,000

MC20-4 (LO3) An accounting change that requires retrospectively adjusting the financial statements for all years reported is a change in
   a. the life of equipment from five to seven years.  
   b. depreciation method from straight-line to double-declining-balance.  
   c. inventory method from LIFO to FIFO.  
   d. the percentage used to determine the allowance for bad debts.

MC20-5 (LO3) In 2011, Maggie Corporation appropriately changed its inventory valuation method to FIFO from LIFO for both financial statement and income tax purposes. The change will result in a $140,000 increase in the beginning inventory on January 1, 2011. Assume a 30 percent tax rate. The effect of this accounting change will be to change prior-year net income and/or retained earnings amounts by a cumulative total of
   a. $0.  
   b. $98,000.  
   c. $(98,000).  
   d. $140,000.

MC20-6 (LO4) Which of the following accounting treatments is proper for a business combination?
   a. Prepare pro forma financial statements as if the businesses were combined at the beginning of this year and prior years presented.  
   b. Restate only the current period financial statements.  
   c. Include a note disclosure detailing the combination and combine the financial statements in future periods.  
   d. Adjust only the retained earnings balance and include a note disclosure detailing the combination.
MC20-7 (LO5) An example of an item that should be reported as a prior-period adjustment is the
a. collection of previously written-off accounts receivable.
b. payment of income taxes resulting from examination of prior years' income tax returns.
c. correction of an error in financial statements of a prior year.
d. receipt of insurance proceeds for damage to a building sustained in a prior year.

MC20-8 (LO5) Nelson Corporation reports on a calendar-year basis. Its 2010 and 2011 financial statements contained the following errors:

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over(Under)statement of ending inventory</td>
<td>$(10,000)</td>
<td>$ 5,000</td>
</tr>
<tr>
<td>Depreciation understatement</td>
<td>4,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Failure to accrue salaries at year-end</td>
<td>8,000</td>
<td>12,000</td>
</tr>
</tbody>
</table>

As a result of the above errors, 2011 income would be overstated by
a. $24,000.
b. $33,000.
c. $23,000.
d. $16,000.

MC20-9 (LO5) Empire Company’s December 31 year-end financial statements contained the following errors:

<table>
<thead>
<tr>
<th></th>
<th>December 31, 2010</th>
<th>December 31, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ending inventory</td>
<td>$4,000 understated</td>
<td>$3,600 overstated</td>
</tr>
<tr>
<td>Depreciation expense</td>
<td>800 understated</td>
<td>—</td>
</tr>
</tbody>
</table>

An insurance premium of $3,600 was prepaid in 2010 equally covering the years 2010, 2011, and 2012. The entire amount was charged to expense in 2010. In addition, on December 31, 2011, fully depreciated machinery was sold for $6,400 cash, but the sale was not recorded until 2012. There were no other errors made, and no corrections have been made for any of the errors. Ignore income tax considerations. What is the total effect of the errors on Empire’s 2011 net income?

a. Net income is understated by $12,800.
b. Net income is overstated by $3,600.
c. Net income is understated by $1,600.
d. Net income is overstated by $2,400.
MC20-10 (LO5) Dimmu Company purchased a machine on January 1, 2010, at a cost of $120,000. An additional $50,000 was spent for installation, but this amount was charged erroneously to Repairs Expense and not discovered until 2012. The machine has a useful life of five years and a salvage value of $20,000. As a result of the error, 

a. retained earnings at December 31, 2011, was understated by $30,000, and 2011 income was overstated by $6,000.

b. retained earnings at December 31, 2011, was understated by $38,000, and 2011 income was overstated by $6,000.

c. retained earnings at December 31, 2011, was understated by $30,000, and 2011 income was overstated by $10,000.

d. 2010 income was understated by $50,000.

Matching

Matching 20-1 (LO1, LO2, LO3, LO5) Listed below are the terms and associated definitions from the chapter for LO1 through LO3, and LO5. Match the correct definition letter with each term number.

___ 1. accounting changes
___ 2. change in accounting estimate
___ 3. change in accounting principle
___ 4. accounting errors

a. a specific type of accounting change that uses an accounting principle or method different from that used previously, for example, using straight-line depreciation instead of the declining-balance method

b. a general term used to describe the use of different estimates or accounting principles or reporting entities from those used in a prior year

c. incorrect accounting treatment resulting from mathematical mistakes, improper application of accounting principles, or omissions of material facts

d. a specific type of accounting change that modifies predictions of future events, for example, the useful life of a depreciable asset; they are to be reflected in current and future periods

Problems

Problem 20-1 (LO2) The Potter Corporation purchased a machine on January 1, 2010. The machine cost $46,000, with an estimated salvage value of $2,000 and an estimated useful life of 10 years. As a result of technological improvements, a revision of the machine’s useful life and estimated salvage value was made. On January 1, 2011, the equipment was estimated to last through 2012, with an estimated value at the end of 2012 of $500. Potter uses the straight-line depreciation method.
Prepare the journal entries to record depreciation on (a) December 31, 2010, (b) December 31, 2011, and (c) December 31, 2012.

**Problem 20-2 (LO3)** Shoefair decided to change its inventory valuation method from LIFO to FIFO as of January 1, 2011. The change is being made for both book and income tax purposes.

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Income Computed Using LIFO</th>
<th>Excess of LIFO Cost of Goods Sold over FIFO Cost of Goods Sold</th>
<th>Income Effect (Net of Tax)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to 2009</td>
<td>$13,500</td>
<td>$8,100</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>$62,500</td>
<td>3,750</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>54,000</td>
<td>4,650</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>78,000</td>
<td>$23,250</td>
<td></td>
</tr>
</tbody>
</table>

1. Using LIFO, the beginning retained earnings as of January 1, 2009, was $171,500. Compute adjusted beginning retained earnings, using FIFO, as of January 1, 2009.
2. The three-year comparative income statement for 2011 includes net income for 2009, 2010, and 2011. In that comparative income statement, prepared after the change for FIFO has been adopted, what amount of net income will be reported for each year?
3. Assume that a dividend of $50,000 was paid in 2010 and another of $100,000 was paid in 2011. No other transactions affected the Retained Earnings balance. What is the balance in the Retained Earnings account at the end of 2011 under FIFO? What would it have been had a change from LIFO not occurred?

**Problem 20-3 (LO5)** On January 1, 2011, Amoeba Company changed its method of accounting for bad debts from the direct write-off method to the allowance method. The company’s controller determined that an allowance of $30,000 should be established on that date.

1. Ignoring income taxes, what is the amount of adjustment required, and where would it be reported in the financial statements?
2. Prepare the journal entry (excluding income taxes) required to adjust the accounts.
Problem 20-4 (LO5) In reviewing the books of Pelican Company early in 2012, the auditor discovered certain items that had occurred during 2010 and 2011. No errors were corrected during 2010. The errors are summarized below:

a. Beginning merchandise inventory (January 1, 2010) was understated by $8,640.

b. Merchandise costing $2,400 was sold for $4,000 to S. Cain on December 30, 2010, but the sale was recorded in 2011. The merchandise was shipped F.O.B. shipping point and was not included in ending inventory. Pelican uses a periodic inventory system.

c. A two-year fire insurance policy was purchased on May 1, 2010, for $5,760. The entire amount was debited to Prepaid Insurance. No adjusting entry was made in 2010 or 2011.

d. A one-year note receivable of $9,600 was held by Pelican beginning October 1, 2010. Payment of the 10 percent note and accrued interest was received upon maturity. The entry on October 1, 2011, was a debit to Cash for $10,560, a credit to Note Receivable for $9,600, and a credit to Interest Revenue for $960. No adjusting entry was made on December 31, 2010.

e. Equipment with a ten-year life was purchased on January 1, 2010, for $39,200. No depreciation expense was recorded during 2010 or 2011. Assume that the equipment has no salvage value and that Pelican uses the straight-line method for recording depreciation.

Prepare journal entries, if needed, to correct each of these independent situations. Assume that the nominal (temporary) accounts for 2011 have not yet been closed into the Income Summary account. A comparative set of financial statements will not be issued for 2010 and 2011.

Solutions, Approaches, and Explanations

MC20-1
Answer: b
Approach and explanation: Consistency is one reason for the way in which accounting changes and errors are reported. Do you know the other?

Comparability would also be correct were it one of the choices instead of consistency.

Materiality isn’t a major factor, although materiality is mentioned several times in the chapter. Materiality determines whether an item must be included in these different methods, but it doesn’t relate most directly with the reporting for accounting changes and errors. In other words, if a low-value purchase is being depreciated, and then its estimated useful life has changed by a year, nothing needs to be done because the effect of the change is immaterial to the company’s overall financial statements.
Conservatism doesn’t apply to accounting changes and errors since it doesn’t matter which way the change or error is going (for or against income). If the item is material, the change is accounted for or the error is corrected.

Objectivity, while being a desirable trait—especially as it relates to auditors—is not really an accounting concept or principle.

**MC20-2**
Answer: a
Approach and explanation: Change in accounting estimates are accounted for differently than a change in accounting principle unless it is a change in depreciation method. Retroactive restatement is not required. In most cases, a change in estimate will be accounted for in the current period and in future periods. On some occasions, choice d would be correct if the word “only” wasn’t included in it.

**MC20-3**
Answer: c
Approach and explanation: The calculation for the first three years' worth of amortization, the adjusted basis (book value) at the time of the change in estimate, and the new amortization for the current and future periods is as follows:

\[
\frac{600,000}{10} = 60,000 \\
60,000 \times 3 = 180,000 \text{ of amortization taken in 2008, 2009, and 2010} \\
600,000 - 180,000 = 420,000 \text{ adjusted basis when change in estimate takes place} \\
\frac{420,000}{4} = 105,000
\]

**MC20-4**
Answer: c
Approach and explanation: Choices a, b, and d are all accounted for as changes in estimates—not principle. Other possibly correct choices instead of choice c exist, but as they were not mentioned specifically in the chapter you probably don’t need to worry about them at this point.

Other possibly incorrect choices exist as well. They include a change in the residual values for depreciable assets, warranty obligations, quantities of mineral reserves to be depleted, actuarial assumptions for pensions or other postemployment benefits, and the number of periods benefited by deferred costs. All of these are accounted for as a change in accounting estimate reflected in the current and future periods. None cause a retroactive restatement of prior years’ financial statements presented along with the current year’s statements.
MC20-5
Answer: b
Approach and explanation: The first thing to note is that this is a change in accounting principle requiring retroactive restatement. Therefore, choice a can be crossed off. If it were, instead, a change in accounting estimate, then choice a would be the correct answer.

The next step is to figure out whether the change will increase or decrease the prior years’ net income and/or retained earnings. There are two ways to think this part of the problem through. The first is to think about the effects of inventory on cost of goods sold. If beginning inventory is more due to the change, like it is here, then that means cost of goods sold in prior years becomes less. Less cost of goods sold, an expense on the income statement, means more net income.

The other way to think about it is to analyze the balance sheet. If beginning inventory is more due to the change, then that means the prior year ending inventory also becomes more. The left-hand side of the balance sheet can’t increase without a corresponding increase to the right-hand side of the balance sheet (or a reduction somewhere else on the left-hand side of the balance sheet). The right-hand side can increase with more net income (increasing retained earnings), more liabilities, or a combination of both. Therefore, both approaches conclude that net income would have been higher in prior years had FIFO been used. Cross off choice c.

The final step is to figure out the amount. With a tax rate of 30 percent and an increase in net income for both financial accounting and income tax purposes of $140,000, retained earnings isn’t going to increase by the full $140,000. The government will have 30 percent of the income or $42,000 ($140,000 × 0.30). Therefore, Income Taxes Payable will increase by $42,000 and Retained Earnings will increase by $98,000 on the comparative 2010 year-end balance sheet.

MC20-6
Answer: a
Approach and explanation: The incorrect choices have pieces of the truth in them, but they also have false portions. Choice b shouldn’t say “only” for it to be true. Choices c and d are correct in that a note disclosure detailing the combination is required; however, it isn’t just future periods or the Retained Earnings balance that are affected. Therefore, only choice a is a proper accounting treatment for a business combination.
MC20-7
Answer: c
Approach and explanation: Prior financial statements are adjusted for three reasons:

1. Errors
2. Most changes in accounting principles
3. Business combinations

New discoveries that existed in prior periods are not adjusted for if the information was not known then, unless an error is involved.

The accounting for collection of previously written-off accounts receivable was covered in Chapter 7. The result is a debit to Cash and a credit to Allowance for Bad Debts. Prior periods are not adjusted.

The payment of taxes from prior-year audits would be accrued currently. The cash received from insurance proceeds would reduce a receivable created in the prior year. Even if the amount of the insurance claim wasn't known in the prior year (and, hence, not accrued then), prior-year financial statements would not be adjusted for the receipt in the current year.

MC20-8
Answer: b
Approach and explanation: Let's start with the easy ones. The depreciation and salaries are both expenses. Since both are understated, income will be overstated by the combination of the two, or $18,000 ($12,000 + $6,000). Prior-year understatements for one-off items, like these, don’t figure into the calculation.

For inventory, an item in which other periods are affected if the balances are in error, use the format we went over back in Chapter 9 to determine the effect as follows:

\[
\begin{align*}
\text{Beginning inventory} & \quad (10,000) \\
+ \text{Purchases} & \quad \_ \\
= \text{Cost of goods available for sale} & \quad (10,000) \\
- \text{Ending inventory} & \quad 5,000 \\
= \text{Cost of goods sold} & \quad (15,000)
\end{align*}
\]

If Cost of Goods Sold is understated by $15,000, then income would be overstated by the same number. Therefore, the final result is $33,000 ($18,000 + $15,000).
**MC20-9**

Answer: d

Approach and explanation: You may be wondering why you are getting so many of these types of questions. The answer is that this area tends to be a difficult one for students. If it is for you, too, then it is only through practice that you will get good at adjusting for errors.

Again, let's start with depreciation. Depreciation is a one-off type of error, and the question asks for the effect of the errors on 2011’s net income—not retained earnings. Thus, 2010’s net income and 2011’s beginning retained earnings should change because of this error, but there is no effect on 2011’s net income for a 2010 depreciation error.

Next, let's look at the insurance premium. $1,200 ($3,600/3) of it should be an expense in 2011. Therefore, net income is overstated by $1,200 in 2011 because of the 2010 error related to the prepaid insurance.

The gain on the sale of the fully depreciated machinery was recorded too late. To fix it, we need to remove the gain from 2012 and bring it back into 2011. That means that 2011 net income is understated by $6,400 from the error on the gain’s timing.

Finally, let's look at the inventory errors in the same format that was used for the prior problem as follows:

\[
\begin{align*}
\text{Beginning inventory} & \quad $(4,000) \\
+ \text{Purchases} & \quad ___ \\
= \text{Cost of goods available for sale} & \quad $(4,000) \\
- \text{Ending inventory} & \quad 3,600 \\
= \text{Cost of goods sold} & \quad $(7,600)
\end{align*}
\]

Since Cost of Goods Sold is understated by $7,600, income is overstated by the same number. The final result is an overstatement of $2,400 ($1,200 – $6,400 + $7,600).

**MC20-10**

Answer: c

Approach and explanation: Compute depreciation as calculated erroneously by Dimmu Company and then compute depreciation expense as it should have been computed. Compare the results, and determine the effects on both years' financial statements because of the error.

As calculated in error:

\[
\frac{($120,000 – $20,000)}{5} = $20,000 \text{ per year}
\]

As corrected:

\[
\frac{($120,000 + $50,000 – $20,000)}{5} = $30,000 \text{ per year}
\]
What conclusions can be drawn from the above?

- Expenses in 2010 were too high by $40,000 ($20,000 + $50,000 – $30,000).
- Expenses in 2011 were too low by $10,000 ($20,000 – $30,000).
- Net income in 2010 was too low by $40,000.
- Net income in 2011 was too high by $10,000.
- Retained earnings were too low at the end of 2010 by $40,000.
- Retained earnings were too low at the end of 2011 by $30,000 ($40,000 – $10,000).

Since choice c is the only choice that matches the above conclusions, it must be correct.

Matching 20-1
1. b
2. d
3. a
4. c

Complete these terminology matching exercises without looking back at the textbook or on to the glossary. After all, you probably won’t have those as a reference at test time. Learning through trial and error causes the item to be learned better and to stick in your memory longer than if you just look at the textbook, glossary, or a dictionary and “cook book” the answers. Sure you may get the answer correct on your first attempt, but missing something is sometimes best for retention. Don’t be afraid of failure while studying and practicing.

Problem 20-1
Book value on January 1, 2011 equals $46,000 so the depreciation calculation at the outset is as follows: ($46,000 – $2,000)/10 = $4,400 per year.

<table>
<thead>
<tr>
<th>Date</th>
<th>Accumulated Depreciation</th>
<th>Book Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/10</td>
<td></td>
<td>$46,000</td>
</tr>
<tr>
<td>1/1/11</td>
<td>$4,400</td>
<td>41,600</td>
</tr>
<tr>
<td>1/1/12</td>
<td>$20,550 + $4,400</td>
<td>21,050</td>
</tr>
<tr>
<td>12/31/12</td>
<td>$4,400 + $20,550 + $20,550</td>
<td>500</td>
</tr>
</tbody>
</table>

Depreciation expense for 2011 and 2012 due to the change in accounting estimate is as follows: ($41,600 – $500)/2 = $20,550.
Problem 20-2

1. Another way of looking at the “Excess of LIFO Cost of Goods Sold over FIFO Cost of Goods Sold” is as the understatement of inventory under LIFO when compared to the new method of FIFO. If inventory is understated under the old method, then it will need to be increased with a debit under FIFO. The corresponding entries will be to credit Income Taxes Payable and Retained Earnings as follows:

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory</td>
<td>13,500</td>
</tr>
<tr>
<td>Retained Earnings</td>
<td>8,100</td>
</tr>
<tr>
<td>Income Taxes Payable</td>
<td>5,400</td>
</tr>
</tbody>
</table>

Therefore, the new beginning retained earnings as of January 1, 2009, will be $179,600 ($171,500 + $8,100).

2. Since this is a change in accounting principle (other than depreciation), the net income for prior periods presented will be restated as if FIFO had always been used. The columns that will come into play for the calculation are “Net Income Computed Using LIFO” and “Income Effect (Net of Tax).”

Since LIFO decreased net income relative to FIFO (with Cost of Goods Sold being higher under LIFO than FIFO for Shoefair), net income will increase for each of the three years under the new method of FIFO.

Net income reported for 2009 will be $66,250 ($62,500 + $3,750).

Net income reported for 2010 will be $58,650 ($54,000 + $4,650).

Net income reported for 2011 will be $84,750 ($78,000 + $6,750).

3. The balance in Retained Earnings as reported on the December 31, 2011, balance sheet under the new FIFO method is $239,250 ($171,500 + $8,100 + $66,250 + $58,650 + $84,750 – $50,000 – $100,000).
Had a change from LIFO to FIFO not been made, the Retained Earnings balance would be $216,000 ($171,500 + $62,500 + $54,000 + $78,000 – $50,000 – $100,000) on December 31, 2011. Notice that the entire difference ($239,250 – $216,000 = $23,250) relates to the total in the “Income Effect (Net of Tax)” column.

Problem 20-3
1. The change is from an unacceptable principle to GAAP, which is an error correction, not a change in accounting principle. The change must be reported as a prior-period adjustment to Retained Earnings on January 1, 2011.

2. Retained Earnings 30,000
   Allowance for Bad Debts 30,000

Problem 20-4
a. No journal entry is required. The 2011 beginning inventory understatement is offset by the 2010 ending inventory understatement. The error is counterbalanced.

   Cost of Goods Sold is overstated in 2011 by the same amount that it is understated in 2010 because of this error. If an income statement for 2010 was being issued, then there would be an adjustment. However, a comparative set of financial statements is not being issued by Pelican, so the error has flipped Retained Earnings back into the correct balance.

b. Sales 4,000
   Retained Earnings 4,000

   Since the periodic inventory method is used and the inventory sold was correctly not included in ending inventory, there is no adjustment to be made to Inventory or Cost of Goods Sold.

   The above entry removes sales from the 2011 income statement and effectively pushes it back into the prior year where it should have been recorded with the credit to Retained Earnings.

c. Insurance Expense 2,880
   Retained Earnings 1,920
   Prepaid Insurance 4,800

   \(^a\)$5,760/2 = $2,880
   \(^b\)$5,760 \times 8/24 = $1,920

   The above entry records the correct amount of expense related to insurance for 2011 and fixes the amount that should have been recorded as insurance expense for the prior year by debiting Retained Earnings for 8 months of 2010 insurance expense.
d. Interest Revenue
   Retained Earnings 240*

   *$960 \times 3/12 = $240


e. Depreciation Expense 3,920*
   Retained Earnings 3,920
   Accumulated Depreciation—Equipment 7,840

   *$39,200/10 = $3,920

Glossary

Note that Appendix C in the rear portion of the textbook contains a comprehensive glossary for all of the terms used in the textbook. That is the place to turn to if you need to look up a word but don’t know which chapter(s) it appeared in. The glossary below is identical with one major exception: It contains only those terms used in Chapter 20. This abbreviated glossary can prove quite useful when reviewing a chapter, when studying for a quiz for a particular chapter, or when studying for an exam which covers only a few chapters including this one. Use it in those instances instead of wading through the 19 pages of comprehensive glossary in the textbook trying to pick out just those words that were used in this chapter.

**accounting changes** A general term used to describe the use of different estimates or accounting principles or reporting entities from those used in a prior year.

**accounting errors** Incorrect accounting treatment resulting from mathematical mistakes, improper application of accounting principles, or omissions of material facts.

**change in accounting estimate** A specific type of accounting change that modifies predictions of future events, for example, the useful life of a depreciable asset; changes in estimates are to be reflected in current and future periods.

**change in accounting principle** A specific type of accounting change that uses an accounting principle or method different from that used previously, for example, using straight-line depreciation instead of the declining-balance method.